UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

08/21/2008

Directy Group Inc Re R11 A109 PO Box 956 El Segundo, CA 90245 EXAMINER

BAYARD, EMMANUEL

ART UNIT PAPER NUMBER

2611

DATE MAILED: 08/21/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532.632	04/25/2005	Ernest C Chen	PD-202130	1632

TITLE OF INVENTION: LOWER COMPLEXITY LAYERED MODULATION SIGNAL PROCESSOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$1440	\$1440	11/21/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where n

maintenance fee notifica CURRENT CORRESPOND	Fe	ee(s) Transmittal. Thi	s certificate canno l paper, such as ai	ot be used for n assignment	domestic mailings of the any other accompanying or formal drawing, must		
Directy Group Re R11 A109 PO Box 956		72006	I Si ao tr	hereby certify that the	tificate of Mailing is Fee(s) Transmit rith sufficient post Stop ISSUE FE FO (571) 273-288	ttal is being o	ission deposited with the United class mail in an envelope bove, or being facsimile e indicated below.
El Segundo, CA	90245		_				(Depositor's name)
			-				(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO	OR .	ATTORNEY DOC	KET NO.	CONFIRMATION NO.
10/532,632 TITLE OF INVENTION	04/25/2005 : LOWER COMPLEXIT	TY LAYERED MODULA	Ernest C Chen ATION SIGNAL PROC	ESSOR	PD-20213	80	1632
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DU	E PREV. PAID ISSUI	E FEE TOTAL F	FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$1440	\$1	1440	11/21/2008
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	٦			
BAYARD, E	MMANUEL	2611	375-295000	_			
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Unl	ondence address (or Cha B/122) attached. ication (or "Fee Address')2 or more recent) attach ND RESIDENCE DATA less an assignee is ident	nge of Correspondence "Indication form and Use of a Customer A TO BE PRINTED ON	(1) the names of up or agents OR, alterna (2) the name of a sir registered attorney of 2 registered patent at listed, no name will of the PATENT (print or data will appear on the	gle firm (having as a r agent) and the nam torneys or agents. If be printed. Type) patent. If an assign	member a 2_se of up to no name is 3_	elow, the doc	ument has been filed for
	iate assignee category or are submitted: So small entity discount p	4l permitted)	D. Payment of Fee(s): (P) A check is enclosed Payment by credit of	Individual Colease first reapply are l. card. Form PTO-2038	rporation or other y previously paid is attached.	d issue fee sh	
5. Change in Entity Sta		d above)	_	posit Account Numbe	r	(enclose an	extra copy of this form).
	s SMALL ENTITY statu d Publication Fee (if requeecords of the United Sta		b. Applicant is no led from anyone other that office.				R 1.27(g)(2). assignee or other party in
Authorized Signature				Date			
Typed or printed name			Registration No				
an application Confiden	tiality is governed by 35 dapplication form to the ions for reducing this but irginia 22313-1450. DC	U.S.C. 122 and 37 CFR	1.14 This collection is	estimated to take 12 r	ninutes to comple	te including	by the USPTO to process) gathering, preparing, and by you require to complete ment of Commerce, P.O. r Patents, P.O. Box 1450,

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,632	04/25/2005	Ernest C Chen	PD-202130	1632
75	90 08/21/2008		EXAM	IINER
Directy Group Inc			BAYARD, EMMANUEL	
Re R11 A109			ART UNIT	PAPER NUMBER
PO Box 956 El Segundo, CA 90)245		2611 DATE MAILED: 08/21/200	8

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 191 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 191 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)	
	10/532,632	CHEN ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Emmanuel Bayard	2611	
The MAILING DATE of this communication appeal claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313 1. ☑ This communication is responsive to 8/13/08.	(OR REMAINS) CLOSED i or other appropriate comm IGHTS. This application is	n this application. If not included unication will be mailed in due cours	se. THIS
			
2. X The allowed claim(s) is/are <u>1-42, 45, 47-49, 53, 55-57, 61</u>	and 63 renumbered as 1-52).	
 3. Acknowledgment is made of a claim for foreign priority until a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do 	e been received. e been received in Application	on No	rom the
International Bureau (PCT Rule 17.2(a)).		•	
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submin INFORMAL PATENT APPLICATION (PTO-152) which give	MENT of this application. itted. Note the attached EX	AMINER'S AMENDMENT or NOTIC	
<u> </u>	, ,		
 CORRECTED DRAWINGS (as "replacement sheets") must (a) ☐ including changes required by the Notice of Draftspers 		w / PTO 048) attached	
(a) ☐ including changes required by the Notice of Draitspers 1) ☐ hereto or 2) ☐ to Paper No./Mail Date	-	w (PTO-948) attached	
(b) ☐ including changes required by the attached Examiner' Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the	s Amendment / Comment o	he drawings in the front (not the back	s) of
DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT	sit of BIOLOGICAL MAT	ERIAL must be submitted. Note	the
Attachment(s)	5 N (1 - 4)	6 ID ((A P P	
1. Notice of References Cited (PTO-892)		formal Patent Application	
 Notice of Draftperson's Patent Drawing Review (PTO-948) M Information Disclosure Statements (PTO/SB/08), 	Paper No.	tummary (PTO-413), /Mail Date Amendment/Comment	
Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. 🛭 Examiner's	Statement of Reasons for Allowand	ce
	9. Other	_•	

Application/Control Number: 10/532,632 Page 2

Art Unit: 2611

DETAILED ACTION

This is in response to RCE filed on 8/13/08 in which claims 1-42, 45, 47-49, 53, 55-57, 61 and 63 are pending. The applicant's amendments have been fully considered therefore this case is in condition for allowance. In addition the pending claims have been renumbered as 1-52 respectively.

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance: the prior arts of record fail to anticipate or render obvious the following recited features: assigning first symbols to the upper layer signal portion of the encoded combined upper layer signal and the lower layer signal and assigning second symbols to the upper layer signal portion of the encoded combined upper layer signal and the lower layer signal and delaying the first symbols as recited in claims 1, 9 and 17. Delaying the input signal; demodulating the delayed input signal to produce a lower layer signal; combining the upper layer signal and the lower layer signal; and decoding the combined upper layer signal and the lower layer signal as recited in claims 25, 31 and 37. Re-encoding and remodulating the upper layer signal; extracting the lower layer signal from the input signal by subtracting the re-encoded and remodulated upper layer signal from the input signal as recited in claims 45, 48, 53, 56 and 61.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/532,632 Page 3

Art Unit: 2611

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/17/2008

Emmanuel Bayard Primary Examiner Art Unit 2611

/Emmanuel Bayard/ Primary Examiner, Art Unit 2611